

When evaluating Macintosh,  
there are two subjects  
you should consider.



OPEN ARCHITECTURE SYSTEM INTEGRATION STRATEGY

# History.

1984. A year of milestones, a year of achievements.

A year of change.

In 1984, Pete Rose got his 3,000th hit; Tom Seaver, his 300th win.

Mikhail Gorbachev assumed power in the Soviet Union. The first artificial heart was implanted.

In 1984, Apple introduced Macintosh.® And, as the saying goes, the rest is history.

The Macintosh wasn't like any other personal computer people had ever seen. And it certainly wasn't like any other personal computer people had ever used.

Rather than following the "user-hostile" computing conventions of the day, the Apple® Macintosh computer offered an entirely new look. One that people could actually understand. Because Macintosh was designed with people in mind.

*In its brief history, Macintosh has established many design innovations. It was the first affordable personal computer to offer a graphical user interface, built-in networking capabilities, high-capacity floppy disk drives, and a wide range of graphics-based programs—from word processing to desktop publishing to design and modeling—that feature a consistent look and feel.*

It made computing an experience worth having, to the point that people who worked with Macintosh found themselves doing something they had never done with a computer—smiling.

Macintosh also made computing an experience worth sharing. People wanted to talk about what they were doing with Macintosh. (Which may help to explain why Macintosh has become as popular as it has.)

At first, Macintosh was met with a mixture of curiosity and skepticism.





But gradually, it began to catch on.

More and more people came to realize that its approach to computing was quite a departure from other systems they had seen. And more and more developers began to write software for it.

Macintosh offered many user interface innovations that have since become synonymous with all Macintosh computers—pull-down menus, movable windows, and icons. And even more innovations have been introduced—including true color, sound, and built-in networking capabilities.

What really made the Macintosh stand out from the computers that came before it, however, was its orientation

to the people who would be using it: everyday people who happen to use computers—not people who use computers every day.

These people appreciated Macintosh most of all.

It gave them a sense of security; it did what they expected a personal computer to do.

And it gave them the power to do things they could never do before.

People also discovered that when a new member of the Macintosh family was introduced, they didn't have to make additional investments in software, hardware, and training.

Virtually all of their applications ran without problems.

So did their peripherals, such as disk drives and printers.

And in many cases, they could upgrade their systems to include the features and capabilities of the new Macintosh.

But ultimately, what people—developers and users alike—discovered was how much more they could do with a Macintosh.

In fact, many of them have helped Macintosh make history.





# And Philosophy.

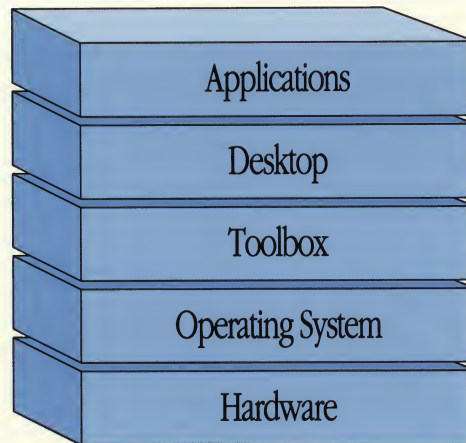
What differentiates the Macintosh from every other personal computer?

People have pointed to its graphical user interface, to its consistent approach to computing, to its broad range of advanced applications software, and even to the fact that it's fun.

What makes Macintosh truly different, however, is its character. It's the first personal computer that is, well, personal.

But the same thing that makes the Macintosh personal is also what makes it powerful: its design.

Since its conception, Macintosh has adhered to a set of specific design

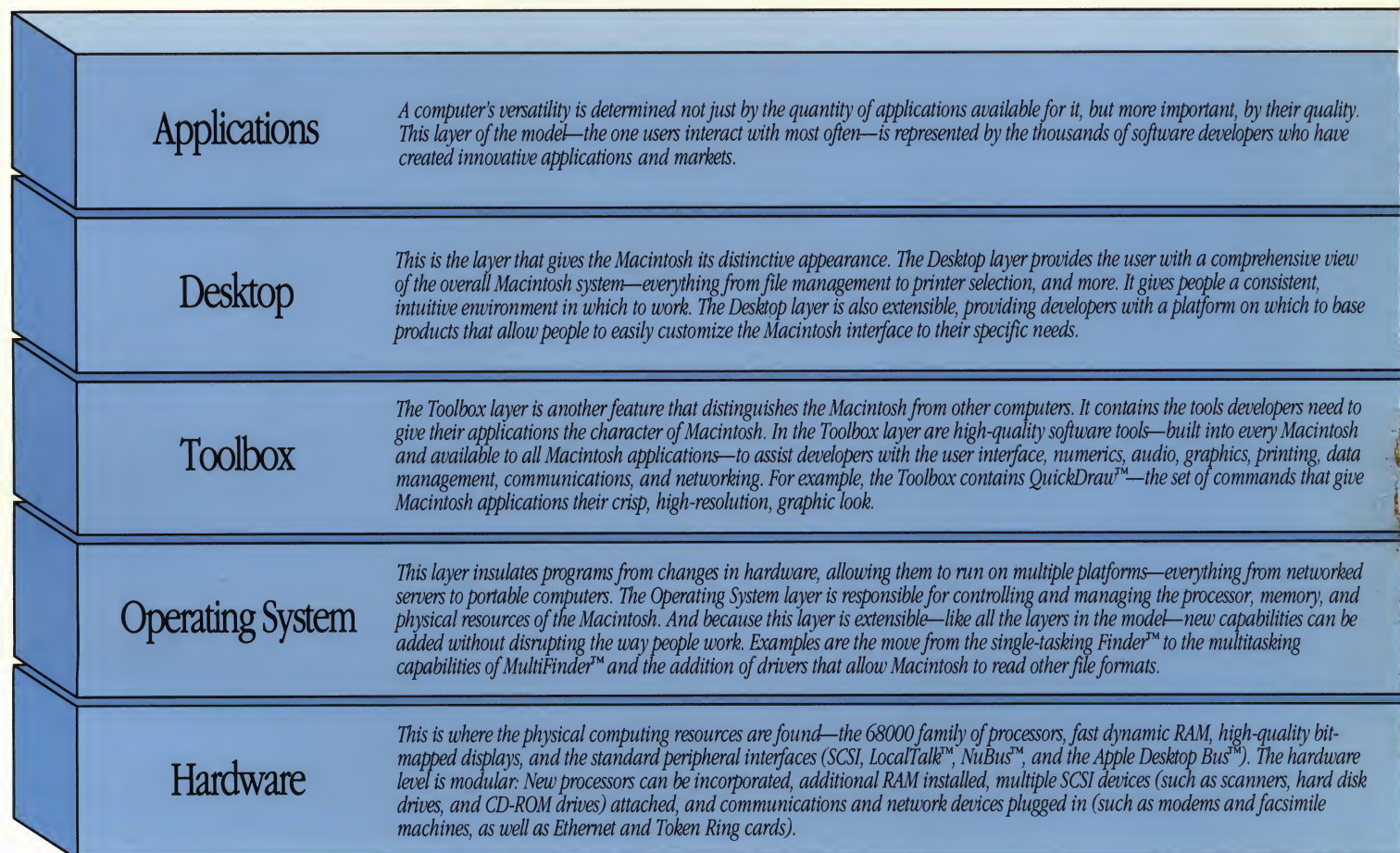


*From the Applications layer (the one closest to the user) through the Hardware layer (which contains basic computing, communications, and imaging technologies), each of the five layers in the Open Architecture System Integration Strategy model plays a specific role.*

principles. They are:

**Consistency.** Because Macintosh gives developers the tools to write software that shares a common user interface, an entire generation of applications—more than 3,000—has been developed that people can learn to work with in a very short amount of time. Because they all work in a similar way.

**Intuitiveness.** The Macintosh interface has always been one of its key advantages. People can understand it—and they can relate to it. They can customize it to look as they wish and to do what they want. And as other features are introduced to personal computing—





such as high-quality video, audio, and color graphics—creating and presenting will take on a whole new look.

**Configurability.** Plug and play; pick and choose. Yes, Macintosh is designed to work the way people work. But people don't all work in the same way. That's why we designed the Macintosh to adapt to your liking. You can choose the type of peripherals you need—and the type of software you want. And you can be sure that they'll all be able to work together.

**Extensibility.** A philosopher once wrote, "If it is not necessary to change, it is necessary not to change." That statement sums up the evolution of Macintosh. Because unlike other computers, as new Macintosh computers and system software have been introduced, the people who use them have

experienced little or no disruption in the way they work.

**Integration.** On one level, integration can be defined as "connecting everything to everyone." While that's a noble concept, it remains a puzzle to most personal computer manufacturers. With Macintosh, however, the idea of integrating different kinds of computers—everything from personal computers to mainframes—is very much a reality. In fact, it's being demonstrated every day through a wide range of products.

On a higher level, integration is characterized by the successful merging

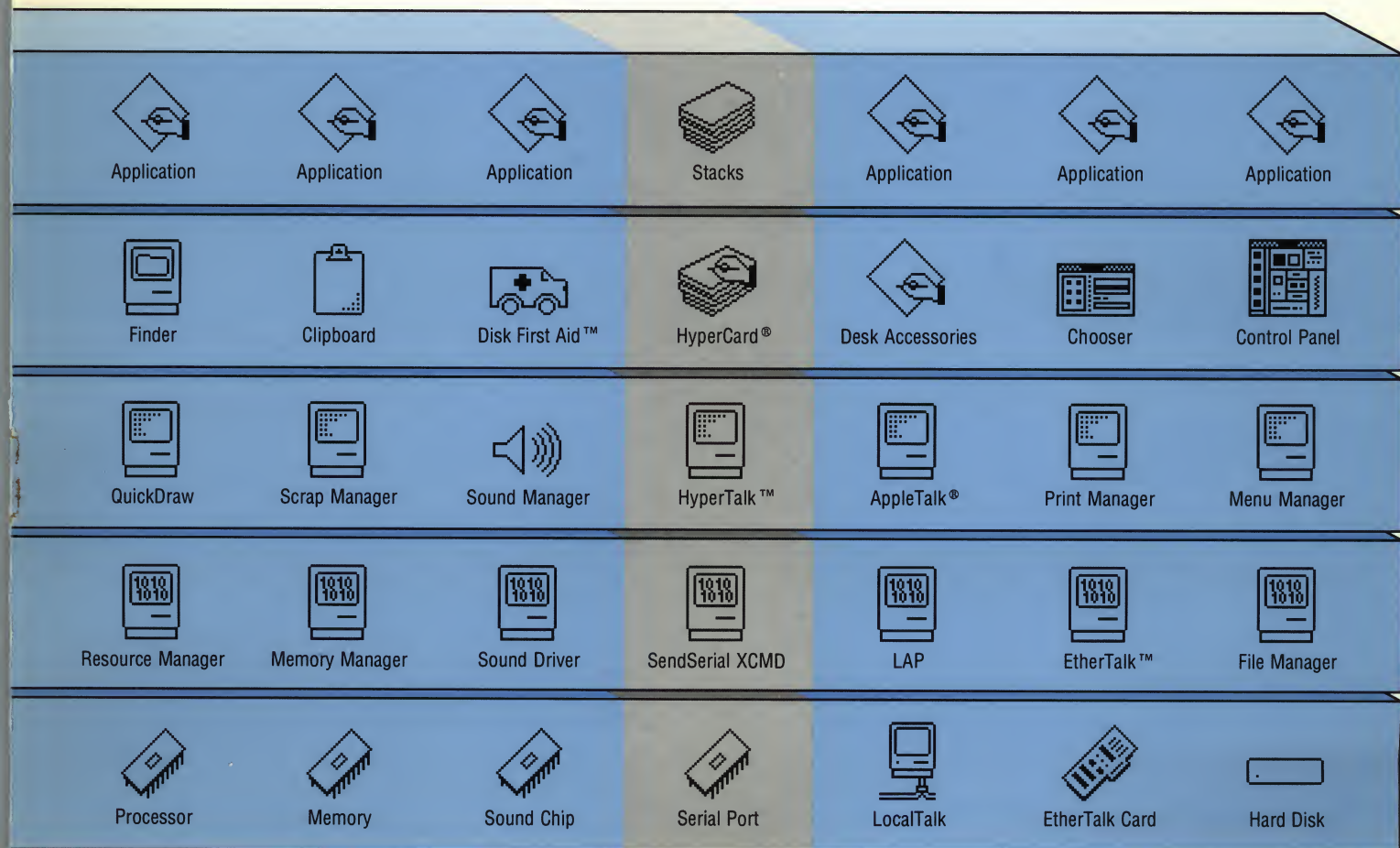
*As a task is initiated, each component of the model does its part. This "slice" of activity—and its interaction with other layers and components—is represented below. Activity, however, is not limited to slices. Any component object can work with virtually any other component—whether it's within the same layer, or in any other layer.*

of all five of the Macintosh design principles and their components—in other words, the way the hardware works together with the software to make a person's experience with Macintosh complete.

We talk about the integration of these design principles—and the way they work together—through a model called the Open Architecture System Integration Strategy.

It is through this model that the inherent advantages of the Macintosh can best be understood. (The diagram below offers an overview of the model and its components.)

Once you've had a chance to discover some of the thinking behind Macintosh, it will be well worth your time to spend some time in front of one.







File Edit View

New Folder ⌘N  
Open ⌘O  
Print ⌘P  
Close ⌘W

Audio...  
Video...

Macro ⌘M  
Link ⌘L  
Quit ⌘Q

Warming trend  
expected

Next update on  
commodity prices:  
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status update:  
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Finance ▶ Other ▶

Global Directory

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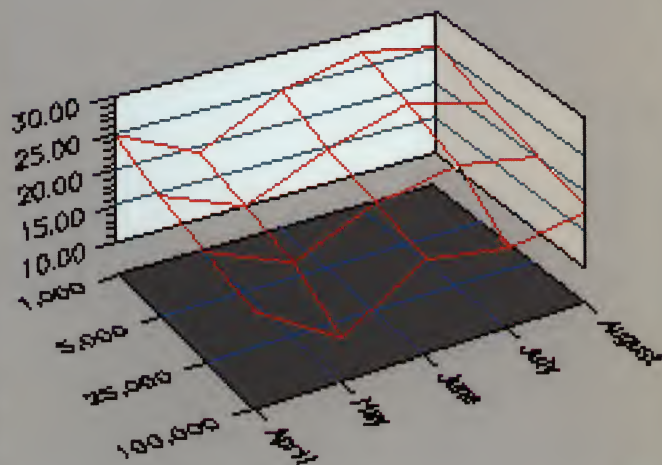


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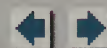
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Animate ▶

Market price averages



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# And here's what they can lead to.

"The only way to predict the future is to have the power to shape the future" (Eric Hoffer, 1978).

At Apple, we're fortunate to have played a large part in the future of personal computing.

And it appears that Macintosh is the shape of things to come.

In fact, one of the most important features built into every Macintosh is its future.

But what exactly does the future hold for Macintosh?

You've had a chance to see what we've done with Macintosh and to understand the basic thinking behind it. Now we'd like to give you a glimpse of some of the things that lie ahead of it.

At the hardware level, you can expect to see continued advancements in the power and performance of the Macintosh family—new configurations, different styles, alternative form factors.

Evolutionary products. And revolutionary ones.

You'll also see significant enhancements to the Macintosh operating system (such as support for interapplication communications and virtual memory), as well as enhancements to our graphical user interface for A/UX,<sup>®</sup> Apple's version of the AT&T UNIX<sup>®</sup> operating system.

You'll see Macintosh making it easier to integrate systems and technolo-

gies from a wide range of suppliers. This improved multivendor communication will take shape through a series of new hardware and software products.

The products you'll be seeing from Apple and other manufacturers will play a key role in extending the advantages of the Macintosh interface to new and existing computer platforms—making it very easy to bring Macintosh into a host of new computing environments and, more important, making it easier to access the information they contain.

There will also be products that integrate Apple computers into different types of networks, using the protocols (such as SNA, DECnet, TCP/IP, NetBIOS, and OSI) and cabling (such as Ethernet, Token Ring, and fiber-optic) you may already have in place.

Finally, you'll see Macintosh computers moving into an entirely new area: multimedia. We're currently working on a new generation of products designed to integrate audio, video, and other sources of information into the Macintosh.

The diversity of our plans, however, is not going to affect our fundamental beliefs about personal computers. Because ultimately, it all comes down to the people who use our computers—and what they expect.

It's always been a tradition with Macintosh to exceed those expectations—and to make their experiences memorable ones.

So take a closer look. Experience Macintosh and what it has to offer—to you and to your company.

And see for yourself where it can lead.

*The expression "the more things change, the more they stay the same" fairly describes the evolution of the Macintosh user interface. As new features and complementary products are introduced, so are new ways of working with Macintosh. But the intuitiveness and consistency of Macintosh make new ideas easy to comprehend. The screen shown here is the product of some very active imaginations, speculating about what a future Macintosh might look like. But even with only a quick look, it's easy to understand what's going on.*





Macintosh is no exception.

One goal of Apple's Open Architecture System Integration Strategy is to extend the Macintosh interface into new areas.

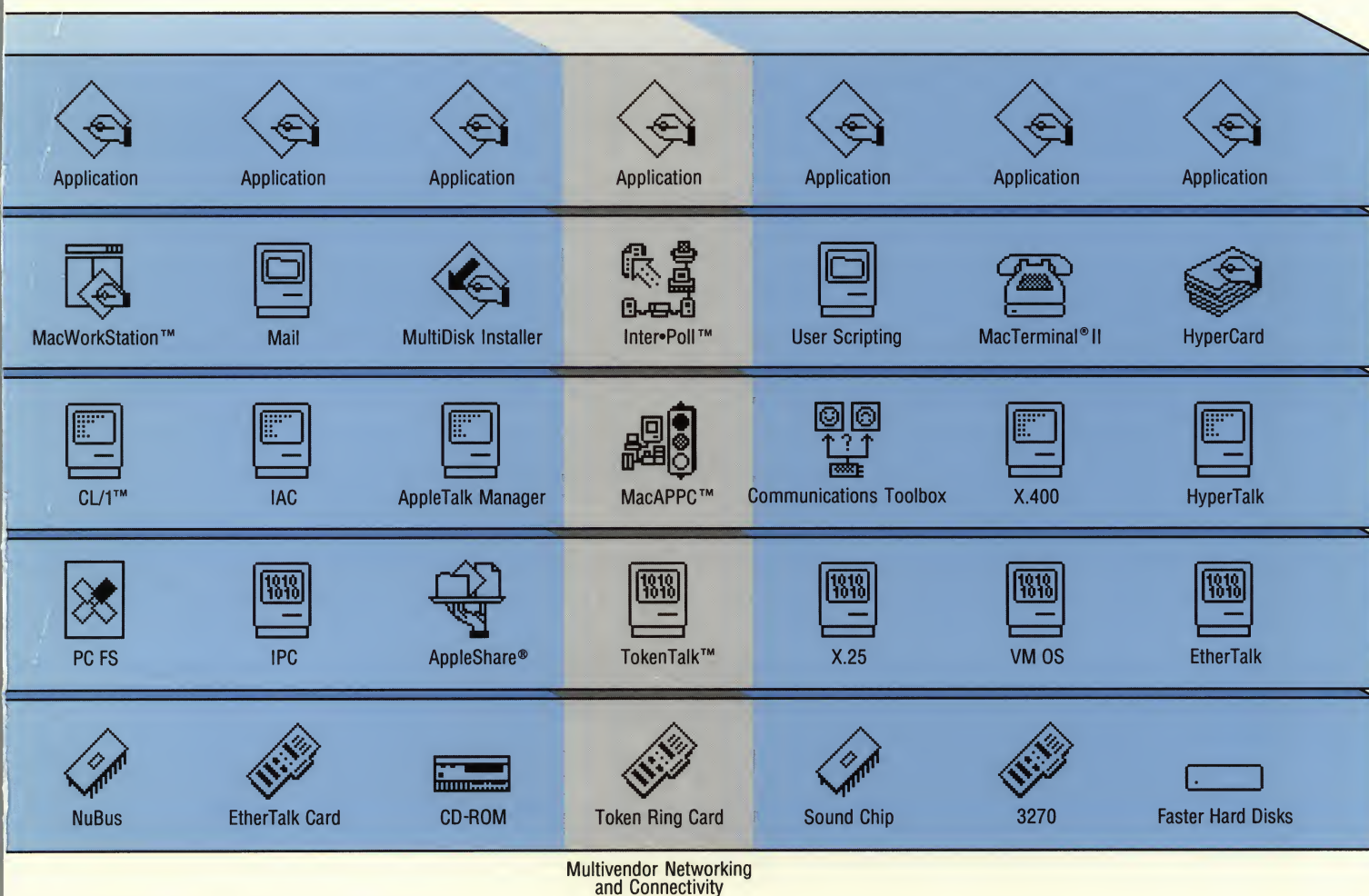
The Macintosh design allows us to change and enhance various components of the system architecture, allowing new technologies to be implemented on the

Macintosh—without disrupting the way people work with it.

For example, to enhance the graphics capabilities of Macintosh, we plan to extend the QuickDraw package in the Toolbox layer to support more colors, higher resolutions, and faster overall operation. To improve font quality, we'll extend the Font Manager to deal with a

wider range of fonts, styles, and sizes.

We'll implement these enhancements transparently, so that applications will run the same way they always have. Moreover, as new technologies establish themselves as viable additions to personal computing, our Open Architecture System Integration Strategy gives us the flexibility to integrate them with Macintosh.



individuals at the center of a multi-vendor environment by integrating a wide range of systems into the Macintosh interface through software such as HyperCard. Using Macintosh computers, people will be able to get the information they need—interactively and in real time—whenever they want it.

As an example, we're working with components in the Hardware,

Operating System, and Toolbox layers that allow Macintosh to facilitate inter-application communications. We'll also increase the functionality and power of AppleTalk to make it easier for people to use Macintosh to communicate with systems from other manufacturers using industry-standard communications protocols. And to ease Macintosh into the world of OSI (Open Systems Interconnect) networks, we'll be

making OSI-compliant additions to the Toolbox layer.

By implementing these enhancements, we'll use Macintosh technology to insulate users from the complexities of multivendor networking. Because people don't really care where the information they want resides; they just want to be able to access it—and make use of it—easily.



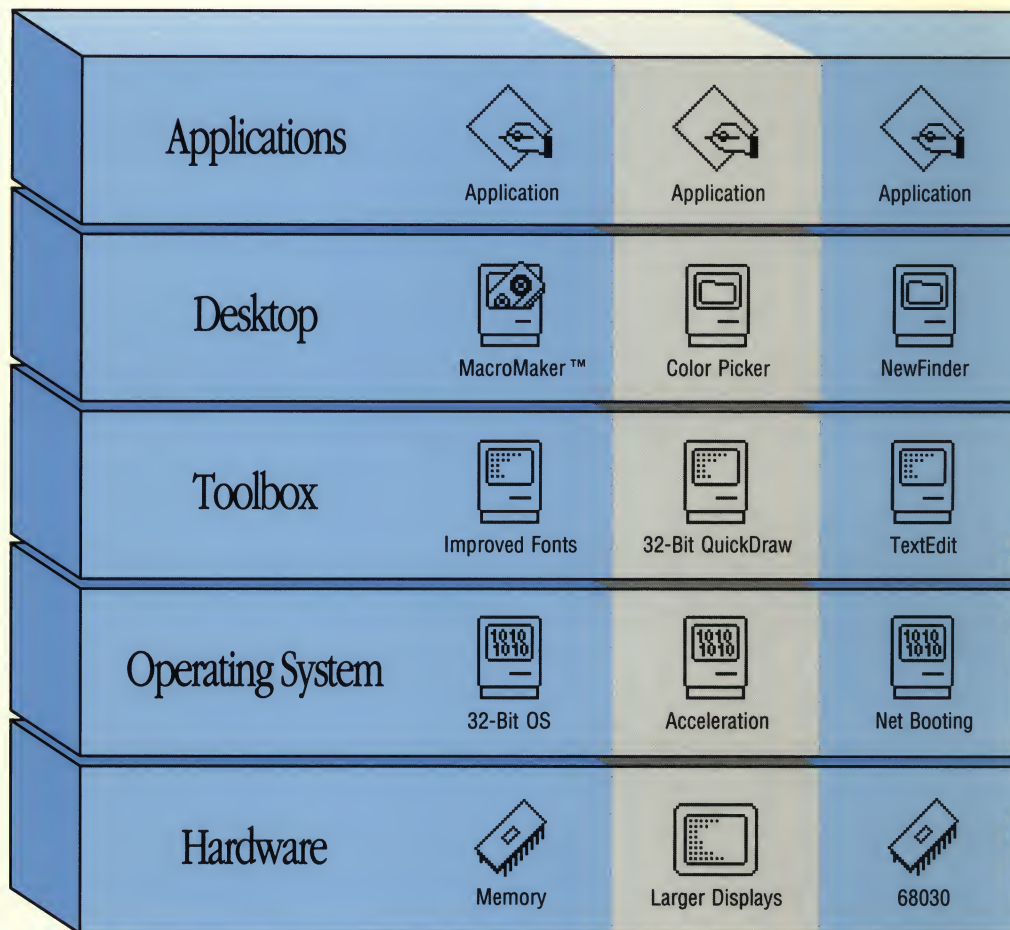
# Extension of the Macintosh Interface

The Macintosh interface is what distinguishes Macintosh computers from all others. It's given people who use Macintosh an experience they've never had before with computers.

More and more, people have come

to expect computers to make it easier for them to do their work. And Macintosh has helped revolutionize the way people work with computers.

Revolutionary ideas, however, often go through evolutionary changes.



Extension of the  
Macintosh Interface

## Multivendor Networking and Connectivity

Perhaps the most important resource for people in business today is information. The problem is that the information they need typically resides on all types of computer systems. And more and more often today, these systems—from micros to minis to mainframes—come from different manufac-

turers. The trouble is that these diverse systems often don't work together. And they have little in common with one another when it comes to learning how to use them.

The Open Architecture System Integration Strategy alleviates many of these problems. We'll place





The power to be your best.™

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